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Journey of a River

Chapter Notes:

Where I Begin, Where I Flow

- The river speaks in the chapter as **Godavari**.
- It travels far through **fields, forests, mountains**, and finally reaches the **sea**.
- Begins as a **small stream** in the **Western Ghats at Trimbakeshwar, Maharashtra**.
- As it flows, many small streams join it. These are called **tributaries**.
- Godavari is **1,465 km long**, the **second longest river** in India after the Ganga.
- **Map Details**
 - **States it flows through:** Maharashtra, Telangana, Chhattisgarh, Odisha, Andhra Pradesh
 - **Dams:** Sriram Sagar Project (SRSP), Polavaram Dam
 - **Wildlife Sanctuaries:** Kawal Tiger Reserve, Coringa Wildlife Sanctuary
 - **Tributaries:** Manjira, Sabari, Indravati

Cultural Importance

- Godavari is known as **Dakshina Ganga** (Ganga of the South).
- Connected with stories from the **Ramayana** and **Puranas**.
- People take a holy dip during **Godavari Pushkaram**.
- A fact from the book: **Bhupen Hazarika Setu** is India's longest river bridge (over Brahmaputra).

The Life I Hold

- Godavari is a **perennial river**—flows all year round.
- **Seasonal rivers** flow only during rains.
- The river supports wildlife such as:
 - Tiger
 - Barking deer
 - Indian golden gecko
 - Red sandalwood trees
- When Godavari reaches the sea, it forms a **delta**.
- Delta region: **Coringa Mangrove Forests** (Godavari meets the Bay of Bengal here).

The Many Ways I Support Lives

- People build homes near rivers because rivers provide:
 - Drinking water
 - Water for cooking, washing and cleaning
 - Water for farming (irrigation)
 - Water for industries and factories
 - Water for fishing, boating and transport
 - Livelihoods for farmers, fishermen & workers
- Water is carried through **pipes** and **canals** to towns and villages.

- The **Chenab Rail Bridge** is the **highest railway arch bridge** in the world.
- **Ecotourism** : Ecotourism means visiting natural places (forests, rivers, mountains) without harming the environment.

Dams—Storing My Water, Changing My Flow

- Godavari has **900+ dams** on it.
- A dam is like a **giant wall** that blocks the river.
- Water stored behind the dam is called a **reservoir**.
- **Benefits**
 - Drinking water
 - Water for farming
 - Electricity generation
- **Problems**
 - Forests and villages get flooded
 - Animals lose homes
 - People must leave and settle elsewhere

What Pollutes Me and Why It Matters

- **Pollutants include:**
 - Plastic waste
 - Household dirty water
 - Sewage
 - Factory waste
 - Chemicals and soaps
 - Fertilisers from farms
- **Effects:**
 - Water becomes unsafe.
 - Animals like fish, turtles and birds die.
 - River becomes dirty and smelly.
- **Solution:**
 - Use eco-friendly products
 - Reduce waste
 - Do not throw garbage into rivers.

The 'Green Blanket' Problem

- Fertilisers washed into the river make plants grow too fast.
- Plants cover the river surface like a **green blanket**.
- This reduces oxygen in water.
- Fish and other organisms start dying.
- Makes river water unsafe for people.

When a River Floods

- **Floods happen when:**
 - Heavy rainfall causes rivers to overflow.
 - Water covers houses, fields and roads.
- **Effects of Floods**
 - Dirty water everywhere
 - Crops destroyed
 - Homes damaged
 - Electricity fails
 - Roads broken
 - Diseases spread
 - Schools shut
- **Flood Safety Tips**

Before the Flood	During the Flood	After the Flood
<ul style="list-style-type: none"> • Keep an emergency kit ready • Follow the news • Know safe routes 	<ul style="list-style-type: none"> • Avoid floodwater • Do not touch power lines • Move to higher ground • Free animals to safe places 	<ul style="list-style-type: none"> • Clean and disinfect the home • Do not return until area is safe • Inform your family

When a River Runs Dry

- Lack of rainfall can cause water shortage.
- People cannot drink, cook or clean.
- Animals suffer too.
- Sometimes families must move to places where water is available.
- **Example from book:**
 - **Chennai** (2019) used special trains to bring water.
 - **Bengaluru** (2022) faced heavy floods—showing both shortage and excess water cause problems.

Saving Water

- **Ways to save water:**
 - Turn off taps
 - Fix leaking taps
 - Water plants using leftover water
 - Every drop counts!
 - Do not waste drinking water
 - Reuse clean water
 - Use water wisely

New Terms

New Term	Meaning
• Stream	- A small flowing body of water that later joins a river.
• Tributary	- A smaller river or stream that joins a bigger river.
• Perennial River	- A river that flows throughout the year.
• Seasonal River	- A river that flows only during the rainy season.
• Delta	- A fan-shaped area where the river splits into many small streams before meeting the sea.
• Mangrove Forests	- Forests found where river water mixes with seawater; home to special plants and animals.
• Ecotourism	- Visiting natural places without harming the environment.
• Dam	- A big wall built across a river to store water.
• Reservoir	- A large water body formed behind a dam to store water.
• Pollution	- Making water, air or land dirty and unsafe.
• Fertilisers	- Chemicals used for crops that may pollute rivers when washed away.
• Green Blanket	- A thick layer of plants covering the river surface due to excess fertilisers.
• Flood	- When a river overflows and water spreads over the land.
• Water ATM	- A machine that gives clean drinking water using a card or coin.
• Water Conservation	- Using water carefully and avoiding wastage.

Look at the image given below and answer the following.

Q 1. Name the states that Godavari flows through.

Answer: Maharashtra, Telangana, Chhattisgarh, Odisha and Andhra Pradesh

Q 2. Name a dam and a wildlife sanctuary along the length of Godavari.

Answer:

- **Dam:** Sriram Sagar Project (SRSP) or Polavaram Dam
- **Wildlife Sanctuary:** Kawal Tiger Reserve or Coringa Wildlife Sanctuary

Q 3. Which other small rivers join Godavari in its journey?

Answer: Manjira, Sabari and Indravati

The Many Ways I Support Lives

Q. Since ancient times, people have always built their homes near rivers or water bodies. Can you guess why?

Answer: People built their homes near rivers because rivers provide water for drinking, cooking, washing, farming, and fishing. Rivers also help in transport, growing crops, and earning livelihoods, making life easier and more comfortable.

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Q 1. List three ways in which people are dependent on the river Godavari.

Answer: People depend on the river Godavari for:

- Drinking, cooking, and washing water
- Farming and irrigation
- Fishing, transport, and other livelihoods

Q 2. In which occupations are people engaged near the river Godavari?

Answer: People near the river Godavari work in occupations such as:

- Farming
- Fishing
- Boating and transport
- Tourism and related activities

Q 3. Which crops do you see growing near the Godavari?

Answer: Crops grown near the river Godavari include:

- Rice
- Sugarcane
- Banana
- Cotton

Q 4. Which crops grow in your region? Where does the water for irrigation come from?

Answer: (You can write according to your region, but here is a model answer.)

State	Crops Grown	Sources of Irrigation
• Tamil Nadu	- Rice, Sugarcane, Millets (Ragi, Jowar, Bajra), Groundnut, Pulses, Cotton, Banana, Coconut, Vegetables, Fruits	- Rivers (Cauvery, Vaigai, Thamirabarani), Dams (Mettur, Bhavani Sagar), Canals, Wells, Tube wells, Tanks/Lakes
• Maharashtra	- Sugarcane, Cotton, Rice, Wheat, Jowar, Bajra, Tur (Pigeon pea), Groundnut, Soybean, Mango, Grapes, Oranges, Vegetables	- Rivers (Godavari, Krishna, Bhima, Tapi), Dams (Koyna, Jayakwadi), Canals, Wells, Tube wells
• Gujarat	- Cotton, Groundnut, Wheat, Bajra, Rice, Sugarcane, Maize, Pulses, Vegetables, Mango, Chiku, Banana	- Narmada Canal, Rivers (Narmada, Tapi, Sabarmati), Wells, Tube wells, Ponds, Dams/Reservoirs
• Rajasthan	- Bajra, Wheat, Barley, Maize, Mustard, Pulses, Groundnut, Cotton (in some areas)	- Indira Gandhi Canal, Wells, Tube wells, Ponds/Tanks, Dams, Reservoirs
• Punjab	- Wheat, Rice, Maize, Sugarcane	- Rivers (Sutlej, Beas), Canals, Tube wells
• West Bengal	- Rice, Jute, Tea, Vegetables, Fruits	- Rivers (Ganga, Hooghly), Rainwater, Canals, Ponds

Activity 1

Make a poster in your classroom showing all the ways rivers help people. Include drawings of homes, farms, boats, fishermen and more.

Answer:



Write

Q. What problems can arise after a dam is built. How can they be solved?

Answer:

When a dam is built, several problems can occur:

- **Flooding of nearby areas** – Water stored in the reservoir can flood forests, villages, and farmland.
- **People lose their homes** – Families living in the area may be forced to move to another place.
- **Animals lose their habitat** – Forests and wildlife are affected when their living space gets submerged.
- **Less water flows downstream** – This can harm plants, animals, and people who depend on the river below the dam.

These problems be solved by following ways:

- **Proper planning before building the dam** to avoid harm to people and nature.
- **Relocating affected families** to safe places with good facilities.
- **Protecting wildlife** by creating new habitats or safe zones.
- **Releasing enough water** from the dam to keep the river healthy.
- **Planting trees** in nearby areas to support the environment.

Write

Q 1. Where do the plastic wrappers and bags that we litter end up?

Answer: Plastic wrappers and bags that we throw away carelessly often end up in rivers, ponds, drains, and the soil. They pollute the water, harm animals, and make the environment dirty.

Q 2. What kinds of soaps, shampoos or floor cleaners (natural or readymade) are used in your home? Where does the unclean water mixed with these cleaners go?

Answer: In my home, we use readymade soaps, shampoos, and floor cleaners. The dirty water mixed with these cleaners goes into the drains, which finally flow into rivers, lakes, or ponds, causing water pollution.

Discuss

Q. Ask your parents or elders, about the condition of water bodies near your home when they were your age. What is the status of those water bodies today?

Answer: When my parents were my age, the water bodies near our home—such as ponds, lakes or rivers—were cleaner and had more water. People used to play near them, and many birds and animals were seen around the water. Today, the condition of those water bodies has changed a lot. Some of them have less water, and many are polluted with plastic, waste and dirty water. Fewer birds and animals visit them now. This shows that we must take better care of our water bodies.

Activity 2

Make a list of things that we throw into the waste bin at home or school. If these things were thrown into a river or a pond, how would each of these items harm the animals, plants and people who live nearby, and use this water?

Answer:

List of things we throw into the waste bin:

- Plastic bags
- Paper waste
- Broken toys
- Pencil shavings and bits of erasers
- Chocolate and chips wrappers
- Old food items
- Bottles and containers
- Disposable cups and plates

How these items can harm rivers, ponds, animals and people:

Item	How it harms the river or pond	How it harms animals, plants and people
• Plastic bags	- Do not dissolve and float on water	- Animals may eat them and choke; plants cannot grow properly; water becomes dirty
• Wrappers (chips, chocolate)	- Stay in water for years	- Fish and birds may swallow them and get sick; water becomes polluted
• Paper	- Makes water dirty when soaked	- Blocks light for plants; reduces oxygen for fish
• Leftover food	- Rots in water and smells bad	- Attracts insects; fish may die due to lack of oxygen
• Broken toys	- Sharp pieces float or sink	- Animals may get injured; water becomes unsafe
• Plastic bottles	- Do not break down easily	- Trap small animals; pollute the water
• Disposable plates/cups	- Float and block water flow	- Harm aquatic life and make water unhygienic
• Rubber/eraser pieces	- Cannot dissolve in water	- Poisonous for fish and other creatures

Conclusion: Throwing waste into rivers and ponds makes the water dirty and unsafe. It harms animals, plants, and people who depend on the water. We must always throw waste in the dustbin and keep our water bodies clean.

Activity 3

Take two clear glasses of water. Add a spoonful of sugar in one and a spoonful of cooking oil in the other. Stir both well and observe.

What do you observe? Which one appears clear?

Answer: When a spoonful of sugar is added to one glass of water and stirred, the sugar dissolves completely in the water. The water appears clear.

When a spoonful of cooking oil is added to the other glass of water and stirred, the oil does not dissolve. It floats on the surface, and the water does not look clear.

Observation:

- **Sugar** dissolves in water, so the water remains clear.
- **Oil** does not dissolve in water, so it floats.

Conclusion: The glass with sugar water appears clear.

This experiment shows us that some things dissolve in water and some do not. Can you list a few things that:

Dissolve in water: Things that dissolve in water:

- Sugar
- Salt
- Lemon juice
- Baking soda
- Detergent powder

Do not dissolve in water: Things that do not dissolve in water:

- Cooking oil
- Sand
- Plastic pieces
- Stones
- Chalk powder

Conclusion: Some harmful things like chemicals or dirty soapy water can dissolve in river water. So, even if the water looks clean, it may still contain harmful substances that can hurt plants, animals, and people.

Activity 4

Look at the two images given below. Which river looks healthy and why? How do so many plants grow in water? What do you think happens when too many plants grow in a river?



River with clean water



Surface covered by 'green blanket'

Answer: The **river with clean water** looks healthy because the water is clear, blue, and free from too many plants. Fish and other water animals can live easily in such water.

Many plants grow in water because **fertilisers and nutrients** from farms get washed into the river with rainwater. These nutrients help plants grow very fast.

When **too many plants grow in a river**, they cover the water surface like a **green blanket**. This blocks sunlight and oxygen from reaching the water. As a result, fish and other water animals **cannot breathe and may die**, and the water becomes unsafe for people to use.

Write

Q. Can you list three things you can do to protect the water bodies near you?

Answer: Three things I can do to protect the water bodies near me are:

1. **Do not throw garbage or plastic** into rivers, ponds, or lakes.
2. **Save water** by using it carefully and not wasting it.
3. **Use eco-friendly products** and keep the surroundings clean to prevent water pollution.

Activity 5

Match the Columns

Note: One problem could affect more than one thing.

Flood problem		What it affects
(i) Dirty water	•	(a) Shelter for people
(ii) Broken roads	•	(b) Safe drinking
(iii) Lost crops	•	(c) Learning
(iv) No electricity	•	(d) Travel and transport
(v) Spread of diseases	•	(e) Lights, fans and phones
(vi) Damaged homes	•	(f) People's health
(vii) Schools shut	•	(g) Food supply

Final Answer (in short form): (i)–(b), (ii)–(d), (iii)–(g), (iv)–(e), (v)–(f), (vi)–(a), (vii)–(c)

Write

Read the flood safety tips carefully.

Flood Safety Tips

Before	During the Flood	After
 <p>Stay informed through the local news</p>	 <p>Disconnect electricity and gas</p>	 <p>Avoid contact with flood water and swimming</p>
 <p>Prepare an emergency bag with food, medicines and flashlight items</p>	 <p>Do not walk or drive in flood water</p>	 <p>Do not touch power lines</p>
 <p>Know the process to evacuate and safe alternative routes</p>	 <p>Get to a higher ground</p>	 <p>Do not go home or to disaster areas until it is declared safe</p>
 <p>Leave before flooding starts</p>	 <p>Follow evacuation orders</p>	 <p>Communicate to your family that you are safe</p>
 <p>In flood prone areas, keep useful items at home (sandbags, ladder, rope, etc.)</p>	 <p>Free cattle and lead animals to a safer place</p>	 <p>When back at home, clean and disinfect surfaces, and items</p>

Write

Read the flood safety tips given in Activity 6 and organise a role-play where you are the Sarpanch or Municipal Corporator of your village or city. Discuss what actions you will take to—

- prevent flooding
- prevent damage caused by flooding
- keep elderly people and people with disability safe
- keep animals safe-answer

Answer: Role - Sarpanch / Municipal Corporator

As the Sarpanch of my village/city, I will take the following actions:

- **To prevent flooding**
 - I will ensure drains and canals are cleaned regularly.
 - I will stop people from throwing garbage in rivers and drains.
 - I will encourage planting more trees to absorb rainwater.
 - I will repair broken embankments and riverbanks.
- **To prevent damage caused by flooding**
 - I will arrange early warnings through announcements and mobile messages.
 - I will prepare safe shelters on higher ground.
 - I will keep emergency kits, food, and medicines ready.
 - I will ensure electricity and gas connections are turned off in flooded areas.
- **To keep elderly people and people with disabilities safe**
 - I will arrange special help and transport for them.
 - I will make sure they are shifted first to safe shelters.
 - I will provide medical help and support at relief camps.
- **To keep animals safe**
 - I will arrange safe shelters for cattle and pets.
 - I will ensure food and clean water for animals.
 - I will ask volunteers to help move animals to higher ground.

Conclusion: By working together and planning properly, we can reduce the harm caused by floods and keep people, animals, and property safe.

When a River Runs Dry! One Point Learning

Take a moment to imagine your day without water. Not easy, right?

Q 1. What would you do if you had no water in your home for an entire day?

Answer: If there was no water for a whole day, I would use stored water carefully. I would avoid wasting water, drink only when needed, and use a small amount for cooking and washing. I would ask my neighbours or family members for help if required.

Q 2. What if there was no water for a week? How would you bath, drink, cook or clean? Where would you go to find water?

Answer: If there was no water for a week, life would become very difficult. I would collect water from public taps, tankers, wells, ponds, or nearby rivers. I would bathe less, reuse water carefully, and clean only when necessary. I would realise how important water is for our daily life.

Let us reflect

1. Find out which river(s) flow through your state.

(a) What are they used for?

(b) Are there any dams on them?

Answer: The Godavari River flows through my state.

- a. The river is used for drinking water, irrigation, fishing, transport, electricity generation, and daily household needs.
- b. Yes, there are dams like Jayakwadi Dam and Polavaram Dam built on the river.

2. Ask your grandparents or parents to share any story or festival related to rivers in your region and present it in the class.

Answer: My grandparents told me about river festivals where people gathered to worship the river. In our region, people celebrate festivals like Pushkaram, take holy dips, and believe rivers bring peace and prosperity.

3. Ask an elder in your family:

a. What was the condition of rivers when you were a child?

Answer: Earlier, rivers were cleaner and fuller. People could drink the water directly, and many fish and birds lived there.

b. What has changed since then?

Answer: Today, rivers are often polluted with waste and plastic, and water levels have reduced due to overuse.

4. Why do you think people built houses and cities near rivers in the past? Are rivers still important today in the same way?

Answer: People built houses near rivers because rivers provided water, fertile land, food, and transport. Yes, rivers are still important today, but we must protect and use them wisely.

5. If you could create one new rule to protect rivers in your city or village, what would it be?

Answer: I would make a rule that no waste or plastic should be thrown into rivers, and strict fines should be given to people who pollute them.

6. Think about a time when you wasted water. What could you have done differently?

Answer: Once, I left the tap running while brushing my teeth. I should have turned off the tap and used only the water I needed.

7. Can you design a simple water filter using everyday materials? What would you include and why?

Answer: Yes. I would use:

- **Cloth or cotton** – to remove dirt
- **Sand and gravel** – to filter small particles
- **Charcoal** – to remove smell and impurities

This filter helps make water cleaner and safer.

8. Imagine you are planning a new city near a river. What steps would you take to:

(a) keep the river clean.

Answer:

- Stop waste from entering the river
- Build proper drainage systems
- Spread awareness about cleanliness